

## IN THE CLAIMS

Claims 1-18 were pending in the present application. Claims 17 and 18 were withdrawn from consideration in response to a restriction requirement. By virtue of this response, claims 1 and 13-15 have been amended. Accordingly, claims 1-16 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter has been added.

### I. Objections to the Specification

The Abstract stands objected to for containing the word "comprising". In response, the Applicants have amended the Abstract to read, "A fluid dynamic bearing motor is provided having an annular sleeve ...." In light of the foregoing amendment, the Applicants respectfully submit that the Abstract is in acceptable form.

### II. Rejections under 35 U.S.C. §102(b)

Claims 1, 2, and 9 stand rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,977,674, issued November 2, 1999 to *Leuthold et al.* (hereinafter referred to as "*Leuthold*"). In response, Applicants have amended independent claim 1, from which claims 2 and 9 depend, to more clearly recite aspects of the invention. Support for the amendment may be found in the present application at least in Figs. 3A, 3C, and 3D. Accordingly, no new matter has been added.

Applicants submit that *Leuthold* does not disclose or suggest all of the features of independent claim 1, as amended. Specifically, *Leuthold* does not disclose or suggest a fluid dynamic bearing motor including a grooved corner bearing comprising first and second grooved surfaces at an angle to each other on a corner "to form a single groove pattern over the corner," the grooved surfaces configured to pump fluid toward the corner, as recited by amended claim 1.

Thus, the Applicants respectfully submit that claim 1, as amended, and claims 2 and 9 that depend therefrom, are not disclosed or suggested by *Leuthold*. Accordingly, Applicants respectfully request that the rejection be withdrawn and claims 1, 2, and 9 be allowed.

### III. Rejections under 35 U.S.C. §103(a)

#### A. Claim 3

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Leuthold* in view of U.S. Patent No. 5,223,758, issued June 29, 1993 to *Kataoka et al.* (hereinafter referred to as "*Kataoka*"). The Applicants respectfully traverse the rejection.

As discussed above, *Leuthold* does not disclose or suggest a fluid dynamic bearing motor including a grooved corner bearing comprising first and second grooved surfaces at an angle to each other on a corner to form a single groove pattern over the corner, the grooved surfaces configured to pump fluid toward the corner, as recited by amended claim 1, from which claim 3 depends. The addition of *Kataoka* fails to disclose or suggest this feature of claim 1.

Thus, Applicants respectfully submit that amended claim 1, and claim 3 that depends therefrom, are not made obvious by *Leuthold* in view of *Kataoka*. Accordingly, Applicants respectfully request that the rejection of claim 3 under 35 U.S.C. §103(a) be withdrawn.

#### B. Claims 4-8 and 10-12

Claims 4-8 and 10-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Leuthold* in view of U.S. Patent No. 6,066,903, issued May 23, 2000 to *Ichiyama* (hereinafter referred to as "*Ichiyama*"). The Applicants respectfully traverse the rejection.

As discussed above, *Leuthold* does not disclose or suggest a fluid dynamic bearing motor including a grooved corner bearing comprising first and second grooved surfaces at an angle to each other on a corner to form a single groove pattern over the corner, the grooved surfaces configured to

pump fluid toward the corner, as recited by amended claim 1, from which claims 4-8 and 10-12 depend. The addition of *Ichiyama* fails to disclose or suggest this feature of claim 1.

Furthermore, Applicants submit that the Examiner has failed to establish a teaching, suggestion, or motivation to combine the teachings of *Leuthold* and *Ichiyama*, and has therefore failed to present a *prima facie* case of obviousness. In particular, the Examiner has failed to provide evidence or a convincing line of reasoning as to why an artisan would find the present claim obvious in light of *Leuthold* and *Ichiyama*. See, MPEP 2142. The Examiner states:

“*Ichiyama* shows at least one of the grooved surfaces comprising at least one relief (48, 50) extending through the grooved portion of the surface for the purpose of equalizing gas pressure.

Since *Leuthold et al.* and *Ichiyama* are all form the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include at least one relief extending through the grooved portion of the surface as taught by *Ichiyama* for the purpose discussed above.” (see, page 4, number 8 of the Office Action).

It is clear that the Examiner is engaging in hindsight analysis. The Examiner has merely stated a purpose of the breathing bore 48 and lubricant circulation path 50 of *Ichiyama*, but has failed to state or indicate why this would suggest to one skilled in the art to combine the references to meet the features of the present claims. Further, the assertion that *Leuthold* and *Ichiyama* are in the same field of endeavor, even if true, does not provide any teaching, suggestion, or motivation to combine the reference teachings, let alone to modify *Leuthold* to meet the features of the present claims. That is, the Examiner has not identified anything that would suggest why one of ordinary skill in the art would combine the references, let alone combine and modify the references, to meet the specific features of the present claims. Therefore, the rejection should be withdrawn because the Examiner has failed to establish a suggestion, teaching, or motivation in the prior art such as a specific understanding or technical principle that would have suggested the desirability of the combination to meet the specific features of claims 4-8 and 10-14. See, *In re Rouffet*, 149 F.3d at

1350, 1357 (Fed. Cir. 1998); MPEP §§ 2142, 2143.01 (“The prior art must suggest the desirability of the claimed invention”).

Thus, Applicants respectfully submit that amended claim 1, and claims 4-8 and 10-12 that depend therefrom, are not made obvious by *Leuthold* in view of *Ichiyama*. Accordingly, Applicants respectfully request that the rejection of claims 4-8 and 10-12 under 35 U.S.C. §103(a) be withdrawn.

#### C. Claim 13

Claim 13 stands rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over *Leuthold* in view of *Ichiyama*. In response, Applicants have amended independent claim 13 to more clearly recite aspects of the invention.

As discussed above, *Leuthold* does not disclose or suggest a fluid dynamic bearing motor including a thrust plate having a grooved journal bearing formed on an outer radial surface thereof and a grooved thrust bearing formed on an axially outer surface thereof, the grooved journal bearing and the grooved thrust bearing forming “a single grooved pattern over a corner of the thrust plate that is configured to pump fluid toward the corner,” as recited by amended claim 13. The addition of *Ichiyama* fails to disclose or suggest this feature of claim 1.

Thus, Applicants respectfully submit that amended claim 13 is not made obvious by *Leuthold* in view of *Ichiyama*. Accordingly, Applicants respectfully request that the rejection of claim 13 under 35 U.S.C. §103(a) be withdrawn.

#### D. Claim 14

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Leuthold* in view of *Ichiyama*. In response, the Applicants have amended independent claim 14 to more clearly recite aspects of the invention.

As discussed above, *Leuthold* does not disclose or suggest fluid dynamic bearing motor including a thrust ring having a grooved journal bearing formed on an inner radial surface thereof and a grooved thrust bearing formed on an axial surface thereof, the grooved journal bearing and the grooved thrust bearing forming “a single grooved pattern over a corner of the thrust ring configured to pump fluid toward the corner,” as recited by amended claim 14. The addition of *Ichiyama* fails to disclose or suggest this feature of claim 1.

Thus, Applicants respectfully submit that amended claim 14 is not made obvious by *Leuthold* in view of *Ichiyama*. Accordingly, Applicants respectfully request that the rejection of claim 14 under 35 U.S.C. §103(a) be withdrawn.

#### E. Claims 15 and 16

Claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Leuthold* in view of United States Patent No. 5,280,208, issued January 18, 1994 to *Komura* (hereinafter referred to as “*Komura*”). In response, Applicants have amended independent claim 15, from which claim 16 depends, to more clearly recite aspects of the invention.

As discussed above, *Leuthold* does not disclose or suggest a fluid dynamic bearing motor including bearing grooves having a journal portion defined on one of the surfaces defining a gap between the shaft and the hub and a thrust portion defined on a surface between one of the first and second plates and the hub, the journal bearing portion and the thrust bearing portion being configured to pump fluid toward a common apex, as recited by amended claim 15. The addition of *Komura* fails to disclose or suggest this feature of claim 15.

Furthermore, Applicants submit that the Examiner has failed to establish a teaching, suggestion, or motivation to combine the teachings of *Leuthold* and *Komura*, and has therefore failed to present a *prima facie* case of obviousness. In particular, the Examiner has failed to provide evidence or a convincing line of reasoning as to why an artisan would find the present claim obvious in light of *Leuthold* and *Komura*. See, MPEP 2142 The Examiner states:

“Komura et al. shows the plates (3, 4) at both ends of the shaft for the purpose of withstanding high speed rotation.

Since Leuthold et al. and Komura et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use plates at both ends of the shaft as taught by Komura et al. for the purpose discussed above.” (see, page 5, number 9 of the Office Action).

It is clear that the Examiner is engaging in hindsight analysis. The Examiner has merely stated a purpose of plates 3, 4 of *Komura*, but has failed to state or indicate why this would suggest to one skilled in the art to combine the references to meet the particular features of the present claims. Further, the assertion that *Leuthold* and *Komura* are in the same field of endeavor, even if true, does not provide any teaching, suggestion, or motivation to combine the reference teachings, let alone to modify *Leuthold* to meet the features of the present claims. That is, the Examiner has not identified anything that would suggest why one of ordinary skill in the art would combine the references, let alone combine and modify the references, to meet the specific features of the present claims. Therefore, the rejection should be withdrawn because the Examiner has failed to establish a suggestion, teaching, or motivation in the prior art such as a specific understanding or technical principle that would have suggested the desirability of the combination to meet the specific features of claims 15 and 16. See, *In re Rouffet*, 149 F.3d at 1350, 1357 (Fed. Cir. 1998); MPEP §§ 2142, 2143.01 (“The prior art must suggest the desirability of the claimed invention”).

Thus, Applicants respectfully submit that amended claim 15, and claim 16 that depends therefrom, are not made obvious by *Leuthold* in view of *Komura*. Accordingly, Applicants respectfully request that the rejection of claims 15 and 16 under 35 U.S.C. §103(a) be withdrawn.

**CONCLUSION**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no.146712007000. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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